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ABSTRACT

Providing effective feedback and supervision for student teachers is an important area of concern. The two primary sources of feedback, the cooperating teacher and the university supervisor, are somewhat limited in scope. At the same time, various approaches used successfully with experienced classroom teachers have been rarely tried with student teachers. This paper describes a 1986 pilot study with 20 secondary student teachers assigned to three groups to examine the efficacy of three training approaches. (1) The control group received ordinary supervisor feedback. (2) The "experimental feedback" group received feedback from a classroom analysis scheme--the Stallings Observation System (SOS). (3) The "experimental seminar" group also received feedback from the SOS, but with guidance and seminar discussion on how to use it for self-improvement. This group also learned to use the Low Inference Self-Assessment Measure. Research results indicate that student teachers in the experimental (third) group improved their teaching in desired directions, exhibiting more interactive teaching behaviors and fewer organizing statements and off-task behaviors, whereas the first and second groups generally did not improve their teaching behaviors. Also, the first and second groups had similar profiles that differed markedly from those of the experimental group. The results indicate that the combination of systematic feedback from a classroom analysis system, self-analysis, and collegial feedback and support is effective for improving student teachers' classroom instruction. A more difficult problem is providing student teachers with sufficient opportunity to practice and modify their behaviors. Included are 1 table and 14 references. (MLH)

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Improving the Quality of Student Teaching

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Improving the Quality of Student Teaching

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Although the student-teaching experience is a critical part of the professional development of teachers, there is a dearth of research studies that indicate the types of field experiences, curriculum, or feedback student-teachers need to facilitate teaching competence (Howey, 1977; Lanier & Little, 1986; Zeichner, 1980). One serious problem with the student-teaching experience is the quality of supervision and feedback provided to these beginning teachers (Cronin, 1983; Sykes, 1983; Waxman & Walberg, 1986). Although many teacher education institutions have lengthened their student-teaching periods in order to improve the initial preparation of teachers, increasing the quantity of time in training is not a substitute for quality supervision by both university personnel and experienced teachers (Cronin, 1983).

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Most supervisors of student-teaching experiences receive very little preparation or training and many do not have the expertise to effectively supervise beginning teachers (Puckett, 1982; Research Committee of National Field Directors Forum, 1982; Sykes, 1983).

The issue of providing effective feedback and supervision regarding the student-teacher's instructional effectiveness is an important area of concern. Currently, the two primary sources of feedback to the student-teacher is the cooperating teacher and the university supervisor. Both sources are limited to the quantity and quality of feedback. Cooperating teachers rarely provide accurate and specific feedback to the student-teachers. In many instances, the cooperating teacher may be aware of a specific problem, but does not feel comfortable in providing critical feedback to the student-teacher. The university supervisor may have little opportunity to give consistent feedback because they typically supervise 10-12 students and only have time to visit a student an average of three or four times during the semester. Much of the supervisor's time is consumed in traveling to and from the various sites with little time remaining for quality feedback. Furthermore, even if time for feedback is not the primary concern, the question of determining the most effective type of feedback for the student-teacher is an important issue for supervisors and cooperating teachers.

Recently, there have been several reviews and studies that have examined the effectiveness of various training approaches in terms of influencing teachers' behavior (Wade, 1984-85; Yeany & Padilla, 1986).

Some of the training approaches which have been found to improve teachers' behaviors include: (a) studying a classroom analysis system; (b) observing models of classroom lessons; (c) analyzing models of classroom lessons; (d) self-analysis of classroom lessons (Freiberg, 1987); and (e) receiving peer, instructor, or supervisor feedback (Yeany & Padilla, 1986). Other approaches which have been found to improve teachers' behaviors include receiving feedback from: (a) pupils or students (Fraser, 1984; Gage, 1972; Waxman & Duschl, 1987; Waxman & Walberg, 1986) and (b) systematic observations through classroom analysis systems (Anderson, Evertson, & Brophy, 1979; Good & Grouws, 1979; Stallings, 1984; Stallings, Needels, & Stayrook, 1979).

All of these procedures have been found to be relatively effective in improving the classroom instruction of experienced teachers, but these approaches, however, have been rarely used with student-teachers. Furthermore, these separate approaches for training teachers have generally been used in isolation from each other. Few studies have examined the use of different combinations of approaches for improving teachers' instruction.

A pilot study was conducted in the Spring of 1986 with 20 secondary student-teachers to examine the differences in improving student teachers' classroom instruction among three training approaches: (a) supervisor feedback, (b) systematic feedback from a classroom analysis system, and (c) systematic feedback from a classroom analysis system and self-analysis.

The twenty secondary student-teachers were selected from a subject pool limited to secondary mathematics, science, English/language and social studies content areas. After being placed in the schools and assigned a university supervisor and cooperating teacher, the 20 student-teachers were randomly assigned to either the control, experimental feedback, or experimental seminar groups.

Instruments

The Stallings Observation System (SOS) (Stallings, 1983) and the Low Inference Self-Assessment Measure (LISAM) (Freiberg, 1982) were the instruments used in the present study to provide student-teachers feedback on their teaching effectiveness.

The SOS consists of two independent observations, the snapshot and the five-minute interaction. The snapshot provides an overall picture of classroom activities, indicating the percentage of time that the teacher is involved in various activities, the materials being used, and with whom the teacher is working (Simons & Stallings, 1985). The five-minute interaction, as its name suggests, documents the interactions between teacher and student during five 5-minute periods. The interactions are coded by the type: academic, organizational, or behavioral (Simons & Stallings, 1985). Observations are made and averaged across a three-day period. Snapshots are completed five times during one period so that a total sample of 15 are done during the three days of observation. Also, five 5-minute interactions are coded each period, evenly distributed across the time. Approximately

300 interactions are coded during each 50-minute period (Simons & Stallings, 1985).

The LISAM is used by the student-teacher to analyze an audiotape of their class. The instrument incorporates some of the teaching behaviors from the Flander's (1956) System of Classroom Interaction Analysis. Several teaching variables such as asking questions, praising students, using appropriate wait time, teacher talk, student talk, lesson introduction, closure, and use of student ideas are incorporated into the analysis. The audiotaping provides the teacher with an opportunity for reflective inquiry into the teaching process based on specific data from the student-teacher's own classroom. The LISAM has been used with secondary student-teachers, secondary teachers returning for graduate degrees, and inservice teachers at both the elementary and secondary levels (Freiberg, 1987).

Observations

The 20 student-teachers were observed six times during the Spring 1986 semester; three consecutive observations in February and three in April near the end of the student-teaching experience.

Observing student-teachers presented greater logistical problems than observing classroom teachers. Student-teachers are in the school for a total of 14 weeks. The usual pattern consists of the student observing for two to three weeks and gradually taking responsibility for one class at a time until all five classes are under the control of the student-teacher. We found great differences in the starting point for complete responsibility for the classes. Some students were teaching

after one week and had responsibility for all classes after three weeks. Other students were never allowed to teach all the classes and only had responsibility for two or three classes. To provide for some equality of teaching time, each of the 20 subjects selected for the study had been teaching the class we observed for at least four weeks and continued with the class until the end of the observation period in April.

Seminars

The seminar group of seven student-teachers met three times, once a week for two hours after school at the University for a total of six hours. During the first session, the seven students received their profiles which were generated from the Stallings Observation System. The students transferred the information from the profiles onto a worksheet which provided for grouping of behaviors (e.g., non-interactive instruction: silent reading and written assignment, off-task student behavior, and classroom management). The student-teachers were able to compare their scores on specific teaching behaviors against norms established by Stallings for experienced classroom teachers. The group discussed specific categories on their instruments and the facilitator provided examples from the teaching effectiveness literature for improving teaching effectiveness. Based on each individual's profile, the student-teachers developed an area of focus for their teaching during the week which was described in writing on a commitment sheet.

The students became problem-solvers for themselves and each other during the seminar. Rather than being isolated with their profile sheets, the students shared data along with their concerns and excitement about what they saw and how they felt about themselves as perspective teachers. It was a rewarding experience to see beginning teachers work cooperatively as colleagues to solve professional problems. This excitement carried beyond the seminar. Several students from the control group appeared at the second meeting because the word was out that the seminar gave student-teachers concrete feedback and a place to share their ideas and concerns. During the second meeting, the group discussed their attempts at changing individual aspects of their teaching.

The problem-solving approach continued into the second seminar. One student was having difficulty in planning a lesson that would match the 45-minute period. Either the student-teacher planned too much and tried to cram all the information into the one period or the lesson was over and there was ten minutes remaining. The group talked about lesson planning and before the seminar was completed, the student had several ideas for planning future lessons, including a more detailed plan for the period and a sense that it is better to achieve mastery with less material than to produce cognitive overload on the part of the students. The second session focused on additional discussions about the profiles and the use of the Low Inference Self-Assessment Measure. The students were asked to audiotape a lesson from the same class from which they had been observed and complete a frequency count on

each of the seven items on the instrument. The instructor provided additional information about effective teaching practices relating to use of academic time, organizing time, questioning skills, student off-task behavior, and classroom management. The third and final session focused on the results of their audiotape analyses and the insights they received from listening to and analyzing their own teaching.

The analysis of the audiotapes were conducted on an individual basis. Each of the student-teachers brought their LISAM sheets and their analysis to the third and final seminar. The students shared their insights in groups of twos and threes and with the total group of seven. Several students expressed their excitement at being able to control their own teaching through the data provided by the profile and the lisam. The students also concluded that the LISAM could be used at anytime during the first year of teaching. Based on their comments to each other and during the seminar, it seemed the students became empowered to change their teaching without being required to depend on an "expert." The collegial relationships developed between the student-teachers during the seminar added to this sense of empowerment. After the last intervention session, the students in the study were observed over a two-week period using the Stallings Observation System.

The control group received the regular feedback a supervisor and cooperating teacher would ordinarily provide during the semester. The first experimental group or feedback group received feedback on the SOS profiles, but were not provided any specific training on the use of

the feedback for the classrooms. The second experimental group received feedback on the SOS profiles, used the LISAM self-analysis, and received specific training based on their SOS and LISAM profiles during a three-week period.

Results

Table 1 reports the results from the pre- and post-observations of the seven classroom interaction behaviors by group. The first five teaching behaviors were derived from the snapshot instrument. The last two variables (all academic statements and organizing and managing statements) are key variables in the FMI (five-minute interaction sequences). The FMI generates 800-900 codings for the three observation periods. Although there were no statistically significant differences among the groups on any of the seven variables according to Kruskal-Wallis analysis of variance, this finding was anticipated due to the small sample size of the study. There were, however, meaningful results for several of the variables or scales employed in this study. Student-teachers in the experimental group, for example, were observed using interactive instruction 71% of the time; whereas student-teachers in the feedback group and control group were observed using interactive instruction 62% and 60%, respectively. For student-teachers in the feedback and control groups, this represented a decline from the initial observations (of 71% and 64%, respectively), while for the experimental group, there was a slight increase from their initial observations (68% to 71%). Similarly, student-teachers in the experimental group were observed using more academic statement

on the final observations (85%) than they used initially (77%) and more than the control and feedback groups (75% and 77%, respectively) who showed little change from their initial observations (78% and 76%, respectively).

On the negative items or scales where teachers are suggested to eliminate or lower the frequency of these behaviors, student-teachers in the experimental group were observed using fewer organizing statements (12%) than the feedback and control groups (18% and 19%, respectively). In addition, pupils in the experimental student-teachers' classroom were observed being less off-task (13%) than pupils in the feedback and control teachers' classrooms (16% and 23%, respectively).

These results indicate that student-teachers in the experimental group did improve their teaching in desired directions while the feedback and control student-teachers did not generally change their behaviors in desired directions. It should be pointed out here that it was hypothesized that the feedback student-teachers would be more similar to the experimental group than the control group. This hypothesis was not supported by the results of the study. Student-teachers in the feedback group had very similar profiles to the control group while, as stated previously, the experimental student-teachers had different (i.e., more desirable) profiles than the other two groups.

Discussion

Although in her synthesis of effective inservice teacher education, Wade (1984-85) found that there was no particularly effective combination of instructional methods, the results of the present study indicate

that the combination of systematic feedback from a classroom analysis system, self-analysis, and collegial feedback and support is an effective approach for improving student-teachers' classroom instruction. These feedback approaches are effective strategies for providing student-teachers with the information they need about their classroom behavior.

It is a more difficult task to provide student-teachers the opportunity to practice and modify teaching behaviors when they have less control over their teaching environment than regular classroom teachers. It is also evident from designing this study that student-teaching is not the same experience for all students. The actual number of student contact hours per week varies according to the latitude provided by the cooperating teacher. The opportunity to teach will continue to be a problem for student-teachers and teacher education programs as the classroom teacher becomes more accountable for teaching effectiveness and student test score results. Teacher Education institutions should consider the use of systematic feedback instruments like the Stallings Observation instrument for student-teachers. University supervisors, cooperating teachers, and student-teachers could be trained to use these instruments. The use of a data-based self-analysis instrument provides student-teachers as well as experienced classroom teachers with a better understanding of their own teaching actions. The seminar provided the vehicle for the development of a collegial problem-solving team which enabled the student-teachers to see their peers as a source of support, ideas and professional growth.

Post Script

The original group of twenty student-teachers were contacted in the Spring of 1987 to conduct follow-up observations during their first year of teaching. We were able to contact thirteen of the twenty students. Ten of the thirteen are currently teaching. All of those currently teaching have agreed to be observed for three days using the Stallings Observation System. All the students seemed eager to receive feedback on their teaching. The results of the follow-up observations one year from this initial study will be available in the near future.

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Table 1

Mean Percentages and Standard Deviations of Pre- and Postobservations of Student Teachers by Group

Teacher Behavior	Control Group (n=5)				Feedback Group (n=7)				Experimental (n=7)			
	Pre		Post		Pre		Post		Pre		Post	
	M%	SD	M%	SD	M%	SD	M%	SD	M%	SD	M%	SD
A. Monitoring	2.4	3.3	11.8	19.9	7.4	9.5	13.7	13.7	6.4	9.2	6.4	7.6
B. Interactive Instruction	71.0	14.3	59.8	31.5	64.1	13.2	61.9	14.5	68.0	14.6	71.4	13.8
C. Student Off-Task Behavior	27.4	18.2	22.8	13.1	18.0	10.4	15.6	6.3	14.7	8.9	13.1	7.3
D. Organizing	10.2	7.6	12.0	11.0	14.7	14.2	8.1	6.1	13.1	11.2	10.6	4.9
E. Classroom Management with Students	10.6	15.2	13.4	20.4	11.3	11.6	12.1	11.8	8.3	9.7	9.4	11.9
F. Academic Statements	77.5	22.4	74.6	16.8	76.1	11.2	76.8	7.8	76.7	10.6	84.6	5.9
G. Organizing Statements	17.4	18.8	18.5	12.3	20.6	10.0	18.4	6.4	20.7	9.8	12.1	6.1

Note: Scales A, B, and F are positive scales or desirable teacher behaviors. Scales C, E, D and G are negative scales or undesirable behaviors.